

0micron

5
18



The Master Builders Co
cleveland ohio

THE MASTER BUILDERS COMPANY

7016 Euclid Avenue
CLEVELAND, OHIO

IN CANADA:
The Master Builders Company, Ltd.
71 Browns Avenue
Toronto, Ont.

BRANCH OFFICES

ATLANTA, GA., 511 Bona Allen Bldg.
Telephone, Walnut 9727
BOSTON, MASS., 80 Boylston St.
Telephone, Liberty 3351
BUFFALO, N. Y., 154 West Huron St.
Telephone, Cleveland 5410
CHICAGO, ILL., 228 No. LaSalle St.
Telephone, State 4175
DALLAS, TEX., 612 Construction Bldg.
Telephone, 7-3423
DETROIT, MICH., Michigan Bldg.
Telephone, CADillac 5587
KANSAS CITY, MO., 523 Dwight Bldg.
Telephone, Grand 0940
LOS ANGELES, CAL., 201 Wm. Fox Bldg.
Telephone, Vandyke 1619
MIDDLETOWN, CONN., Central Nat. Bk. Bldg.
Telephone, Middletown 1003
MIAMI, FLA., P. O. Box 2632
Telephone, North 3261-J
MILWAUKEE, WIS., 774 No. Broadway
Telephone, Marquette 3019

Research Laboratories: Cleveland

TECHNICAL SERVICE

28 years of field experience and laboratory research in concrete and mortar treatments stand back of Master Builders Specifications and Products.

This specialized knowledge is "on call" for architects and builders.

Please telephone or write our nearest office.

BRANCH OFFICES

MINNEAPOLIS, MINN., 703 Third Ave., So.
Telephone, Atlantic 4803
MONTREAL, QUE., 1434 St. Catherine St., W.
Telephone, Plato 6720
NEW YORK, N. Y., 101 Park Ave.
Telephone, Ashland 4-0160
PHILADELPHIA, PA., 1306 Architects Bldg.
Telephone, Rittenhouse 2231
PITTSBURGH, PA., P. O. Box 115
Telephone, Wellington 2260
ROCK ISLAND, ILL., 721 34th St.
Telephone, Rock Island 3119
ST. LOUIS, MO., 3548 So. Grand Blvd.
Telephone, Grand 5511
SAN FRANCISCO, CAL., Rialto Bldg.
Telephone, Sutter 1100
TORONTO, ONT., 71 Browns Ave.
Telephone, Melrose 1798
WASHINGTON, D. C., 807 Chandler Bldg.
Telephone, National 6303
WEST LAWN, PA., 2115 Highland St.
Telephone, Reading 81-9823

Factories: Cleveland, Buffalo, Toronto

INDEX

Type of Product	Trade Name of Product	Purpose of Product	Page No.
FOR "LEAKPROOF" MASONRY MORTAR	MORTARPROOFING	For Reducing Shrinkage, Increasing Adhesion, Checking Efflorescence, and Absorption, and Plasticizing Mortar.	4 and 5
FOR WORKABLE LOW WATER RATIO CONCRETE	POZZOLITH	Eliminates up to 20% of mixing water, yet improves placability, increases density.	6 and 7
CONCRETE FLOOR HARDENERS	MASTERPLATE	For Super Heavy Duty Concrete Floors	12
	METALICRON	For Hardening Industrial and Heavy Duty Concrete Floors.	13
	MASTER MIX	For Hardening Commercial and Light Duty Concrete Floors.	13
COLORED CONCRETE FLOOR HARDENERS	SANISEAL	For Hardening and Dustproofing Concrete Floors <i>After Installation</i> .	15
	COLORMIX	For coloring and hardening throughout topping—ten integral colors.	8
	COLORED MASTER MIX	For large Areas—low cost method—colors and hardens throughout topping. Red, Brown, Tan, Gray and Black.	13
INTEGRAL WATERPROOFINGS	COLORED METALICRON	For Coloring and Hardening Concrete Floors by Dust-Coat Method.	9
	DYCROME	For Coloring and Hardening Concrete Floors <i>After Installation</i> by Acid Stain Method.	8
	STEAROX "30"	For Waterproofing Mass Concrete and Mortar—A 30% concentrated pure stearate paste.	11
SURFACE WATERPROOFINGS AND DAMPPROOFINGS	MASTERSEAL	For Transparent Surface Waterproofing on wet or dry masonry.	10
	METALLIC WATERPROOFING	For waterproofing floor and wall areas against hydrostatic pressure.	15
	MASTERTEX	Waterproof Cement Paint for Masonry—ten colors.	10
	CAULKING COMPOUND	In nine colors and natural. Applied by knife or gun.	15
	PLASTER BOND FOUNDATION C'T'G.	For Dampproofing and Insulation.	15
MISCELLANEOUS PRODUCTS	CONCRETE PRESERVATIVE	Corrosion resistant penetrant for Concrete.	15
	BONDING IRON	For Bonding Concrete Topping to Base Slab.	15
	EMBECCO	For routing, Reintegration and Repairs.	14

REPRESENTATIVES

(For Street Address and Phone Number, Consult Directory)

AUGUSTA, GA., Augusta Bldg. Supply Co.
BALTIMORE, MD., Monumental Brick & Supply Co.
BELLAIRE, OHIO, Buckeye Sand & Supply Co.
BIRMINGHAM, ALA., Thomas Supply Co.
BUFFALO, N. Y., Globe Plaster Co.
CALGARY, ALBERTA, Bell & Morris
CHARLOTTE, N. C., A. L. Simpson
CINCINNATI, OHIO, Cinder Products Co.
COLUMBIA, S. C., F. D. Owen
COLUMBUS, OHIO, R. C. Johnson
CUMBERLAND, MD., Young Sales & Engr. Co.
DALLAS, TEX., Macatee, Inc.
DENVER, COLO., Rocky Mtn. A. & B. Service
DUBUQUE, IOWA, Baumgartner Sales Service
EL PASO, TEX., El Paso Bldg. Mat'l Co.
FORT SMITH, ARK., Harry G. Barr
FORT WORTH, TEX., Sloan Lumber Co.
GRAND RAPIDS, MICH., Lincoln Brick Co.
GREENVILLE, S. C., J. C. Plowden
HELENA, MONT., R. C. Grant
HOUSTON, TEX., A. M. Bowles
INDIANAPOLIS, IND., Spickelmeir Fuel & Supply Co.
JOHNSON CITY, TENN., Eustis A. Lancaster
KALAMAZOO, MICH., Miller Lumber Co.
KANSAS CITY, KAN., A. C. Cooke Coal & Cement Co.
KANSAS CITY, MO., C. A. Brackett Cement Co.
KNOXVILLE, TENN., Chandler Company
LA CROSSE, WIS., Meir Brick Co.
LANSING, MICH., Briggs & Co.
LEXINGTON, KY., Clay-Ingels Co.
MILWAUKEE, WIS., W. H. Pipkorn Co.
MOLINE, ILL., Moline Consumers Co.
(Continued on Margin of Inside Back Cover)



IN CANADA
**THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL**

OMICRON

"THE VITAL INGREDIENT FOR PERMANENCE IN CONCRETE"

OOMICRON, discovered in 1927 by Master Builders Research Laboratories, performs the unique function of *reducing the volume of water needed to provide an ideal placeability* in all concrete or mortar mixes. The importance of this development cannot be overlooked, for it marks a new and radical advance in the effort materially to increase the practical life of concrete structures. This sharp reduction in the volume of water in concrete or mortar mixes results in greatly increased *density*, reduced *shrinkage*, a sharp increase in *strength*, a stubborn resistance to the disintegrative attack of *freezing and thawing* and *corrosion*.

Density

Ultimate goal of all concrete or mortar designers, is best achieved through a reduction in the volume of water. *Omicron* products provide the architect and the engineer with greater control of the density and water-tightness of the concrete or mortar used in the construction of their jobs.

Strength

This reduction in the volume of water needed to obtain ideal placeability results in a natural increase in strength; field and laboratory tests show for concrete and mortar made with *Omicron* products a much greater strength than plain mixes.

Pozzolanic Activity

Important to many projects is the added resistance *Omicron* products build into concrete and mortar . . . resistance against corrosion and attack by natural alkalies and acids present in the soil and air. *Omicron* preserves the increased density imparted to concrete and mortar by Master Builders products.

Increased Placeability

With much less water! From scores of engineers, architects and contractors have come unsolicited substantiation of the claims made for *Omicron* products. Of major importance is the fact that under actual job conditions *Omicron* products have enabled engineers to create from unusually dry mixes concrete and mortar of exceptional placeability.

THE EFFECTS OF 150 CYCLES OF FREEZING AND THAWING ON MORTAR



Untreated

Here are pictured the results of 150 cycles of freezing and thawing on 1:5 mixes tested by Loring O. Hanson, registered professional engineer, University of Wisconsin. The specimen below was fortified with Pozzolith, an *Omicron* product. Note the comparative rate of disintegration; break tests for strength showed the Pozzolith specimens 75 per cent stronger than the plain specimens.



With
Pozzolith



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

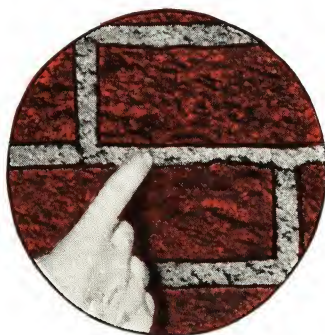
OMICRON MORTARPROOFING

Mortar Shrinkage Means Leaky Walls

*"I check
mortar
shrinkage"*



*The Rockefeller
Apartments, New
York City. Archts.—
Wallace K. Harrison
and J. Andre Fouil-
houx. Gen. Contrs.—
Barr, Irons & Lane,
Inc. Masonry Contr.—
Micuel Co., New
York City.*



*Above: Actual photo
of ordinary mortar
joints. Note shrunken,
cracked mortar, per-
mitting rapid water
seepage and destruc-
tion.*



*Right: Actual photo
shows how Omicron
Mortarproofing pre-
serves the bond—
makes possible
weatherproof brick
walls.*

AUTHORITIES agree that cracks between the mortar and brick are the major cause of leakage. All mortars shrink, whether patented masonry cements, standard cement or lime or combinations of cement and lime, waterproofed or otherwise. Shrinkage is inevitable, because more than twice as much water is required for workability than is needed to hydrate the cement. *By a reduction in water volume without the loss of workability shrinkage can be checked.*

Omicron Mortarproofing produces an ideally workable mortar with much less water—and reduces shrinkage beyond the critical point at which the bond breaks.

- **Increases Plasticity**

The gelatinous properties of Mortarproofing so increase the plasticity that the mason must automatically reduce water or add sand—or both—to obtain proper consistency.

- **Checks Efflorescence**

The puzzolanic action of the Omicron ingredient in Mortarproofing reduces the soluble salts which cause efflorescence originating from the mortar.

- **Reduces Water Absorption**

The stearate ingredient of Mortarproofing assists bond, checks capillarity, and renders pores water-repellent.

- **Improves Adhesion**

The plasticizing effect of Mortarproofing increases the extent of bond.

- **Increases Strength**

Reduced water-cement ratio increases the bond, shear and compressive strengths of the mortar.

SPECIFICATION (NON-COLORED) . . .

Mortar for all masonry shall be composed of 1 part cement, 1 part lime, 6 parts sand; (or 1:2:9; or an approved masonry cement, or other mix as designated) to which shall be added Master Builders Omicron Mortarproofing in the proportions of 1 qt. per each sack of cement and 1 qt. per each cu. ft. of lime, in exact accordance with the directions of the manufacturer, The Master Builders Co.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

AN UNEQUALLED RECORD IN PERFORMANCE!



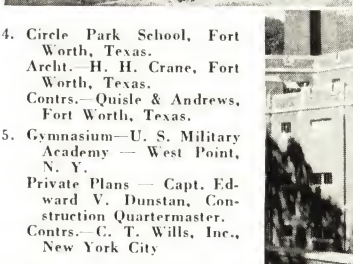
1. Rhode Island School of Design
—Providence, R. I.
Archts.—Jackson, Robertson &
Adams, Providence, R. I.
Contrs.—James C. Stewart Co.,
New York City.



2. Heilemann Brewery Stock
House—La Crosse, Wisc.
Archts.—R. Griesser, Chicago,
Ill.
Contrs.—Peter Nelson & Son,
La Crosse, Wis.



3. Alameda County Court House—
Oakland, Calif.
Archts.—Wm. E. Schirmer, Oak-
land, Calif.
Contr.—K. E. Parker Co., San
Francisco, Calif.



4. Circle Park School, Fort
Worth, Texas.
Archts.—H. H. Crane, Fort
Worth, Texas.
Contrs.—Quisile & Andrews,
Fort Worth, Texas.

5. Gymnasium—U. S. Military
Academy—West Point,
N. Y.

Private Plans—Capt. Ed-
ward V. Dunstan, Con-
struction Quartermaster.
Contrs.—G. T. Wills, Inc.,
New York City



**Triples Slump with Lower
Water Ratio**

MIX—1 Cement: 1 Lime: 6 Sand
A B
6 gal.—WATER—5 3/4 gal.
0—MORTARPROOFING—1/4 gal.
2 1/8"—SLUMP—4 3/4"

Mortarproofing Checks Cracking in Stucco

As every architect knows, the troublesome shrinkage in mortars occurs *during the first 24 hours*. This early shrinkage results in minute, often invisible cracks that later widen and deepen under the attack of weathering and contribute greatly to the untimely disintegration of stucco walls.

Omicron Mortarproofing reduces early shrinkage by 50% . . . or beyond the critical point where cracks occur!

COLORED MORTARPROOFING

IN COLORS—Through exhaustive analysis of the mortar color problem a special process for producing colors ground to a colloidal fineness was developed which eliminated the objections to old style colors, namely: fading, weakening of joints and increased shrinkage.

Colored Omicron Mortarproofing joints *do not fade*, actually increase compressive strength over plain mortar and greatly *reduce shrinkage*.

(Send for color card, with detailed instructions.)

Specification

Mortar for brick, (stone, tile, terra cotta) shall be proportioned 1 part cement, 1 part lime, 6 parts sand (or other mix as designated), to which shall be added Master Builders (insert the name of the color) Omicron Mortarproofing, in exact accordance with the directions of the manufacturers, The Master Builders Company.

Reduces Shrinkage FROM COLUMBIA UNIVERSITY TEST Nos. 2356-57					
Mix	Shrinkage in Inches 2" x 4" Specimens			Bond Strength*	Comp. Strength*
	24 hrs.	7 days	28 days	28 days	28 days
1:1:6	.027	.030	.030	66.8	704
1:1:6 with M.	.017	.019	.020	72.7	740
1:2:9	.022	.024	.023	73.0	490
1:2:9 with M.	.013	.014	.015	90.8	569
1:2:11 with M.	.010	.014	.015	74.9	462
Average of three specimens. *Pounds per sq. inch.					

Reduces Absorption					
Mix—1:3	Percent absorption by weight				Decreased absorption
	1 hr.	2 hrs.	1 day	Totally immersed	
Untreated	1.4	1.8	2.5	3.4	
Mortarproofing	0.7	0.9	1.1	1.3	47%
Average—4 standard Stearate Pastes	0.65	0.875	1.3	1.85	47%



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

FOR MORE DENSE, MORE DURABLE CONCRETE . . .

POZZOLITH

LESS WATER
more
PLACEABILITY
IN *ALL*
CONCRETE MIXES



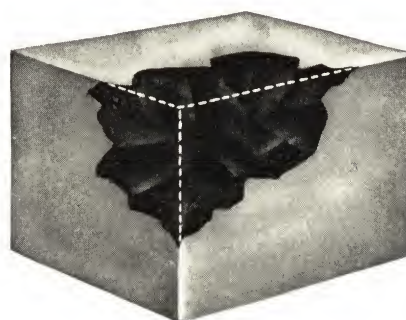
PLAIN MIX

2 1/4 gals. Water 1 7/8 gals.*
13 1/4 in. Slump 2 1/2 in.
3180 lbs. Comp. Strength... (7 days) 5150 lbs.
*16 1/2% less water!

POZZOLITH MIX

SINCE the introduction of the water-cement ratio law governing the strength and durability of concrete, the necessity for using comparatively dry mixes has been generally recognized. Of

great importance, however, has been the need for some means of obtaining low water-cement ratio mixes that could be easily and economically placed. **POZZOLITH**, and *much less water*, produces concrete of exceptional placeability—a dense, durable concrete highly resistant to the disintegrating attack of freezing and thawing and corrosion. **POZZOLITH**, added to any practical mix, “automatically” forces a reduction in the amount of gauging water—for if the gauging water is not reduced the mix will be too “wet” for practical purposes. To any mix, even a very dry mix, **POZZOLITH** imparts a plasticity and cohesiveness that makes for speedy, economical placing, for freedom from the dangers of excessive honeycombing and segregation. On a growing list of the nation’s important projects **POZZOLITH** is daily demonstrating its ability to build better, more placeable concrete *with much less water*. An added feature of extreme importance to many jobs is the early effective pozzuolanic activity of **POZZOLITH** which adds a stubborn resistance to attack by corrosion.



• WHY LESS WATER?

In a cubic yard of concrete, about 2 1/2 gals. of water per sack of cement are required for complete hydration. Water in excess of that amount is simply “placing” water. Thus, in a 6-bag, 6.5 gal. per bag mix, only 15 gals. are needed for hydration, 24 gals. will be “placing” water, occupying approximately 3.2 cubic feet of space which will be voids and shrinkage cracks in finished concrete. If this excess water were concentrated at one point, it would leave space illustrated by the shaded area in block above—over 10% of the original volume.

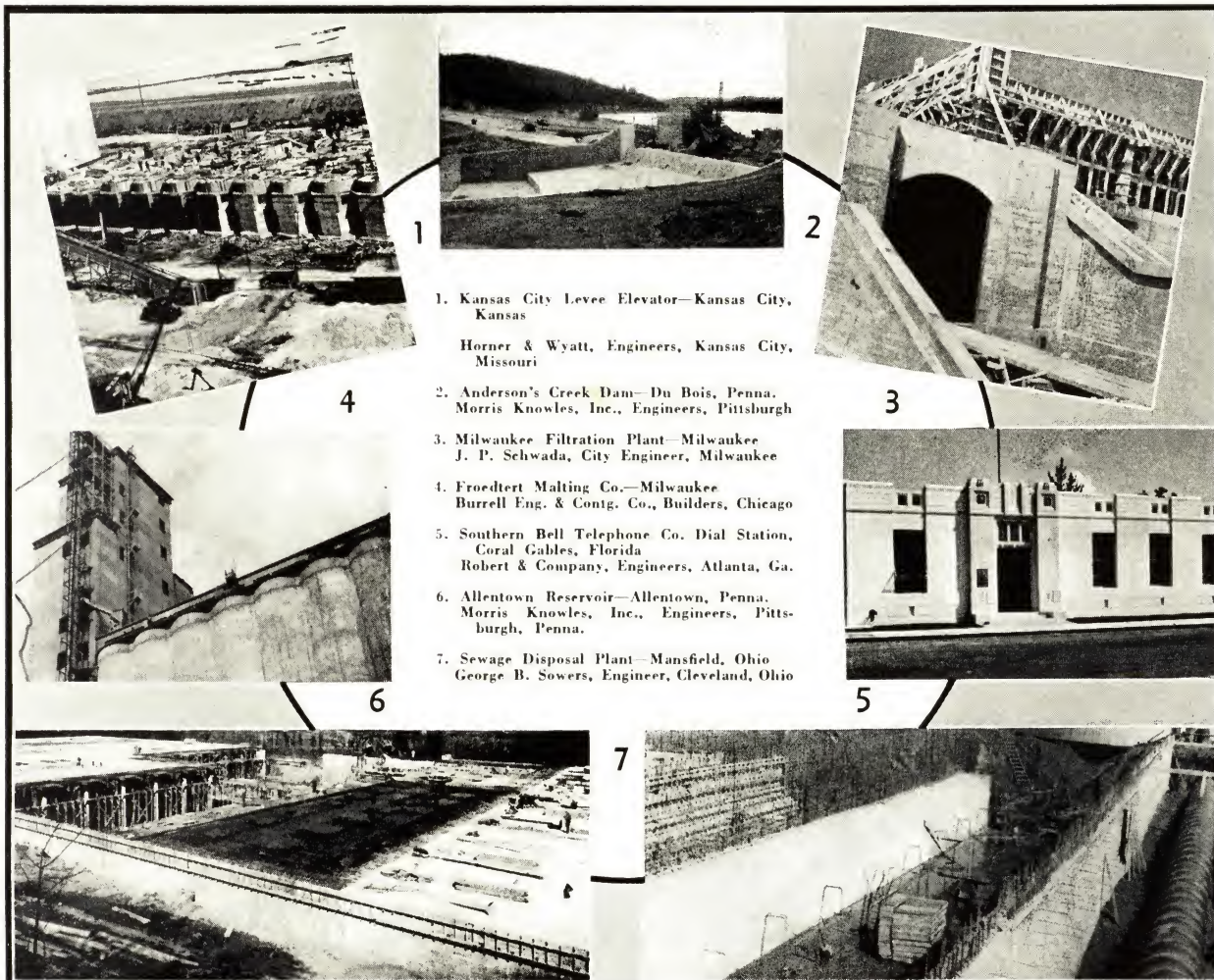
Specification

Master Builders Pozzololith shall be added in the proportions of 1 Gal. of Pozzololith per cu. yd. of concrete to all mixes using up to 5 1/2 sacks of cement per cubic yard. For each sack of cement per cubic yard in excess of 5 1/2 sacks, one additional quart of Pozzololith shall be added to the mix. (For example, in 6 1/2 sack mixes use 5 qts. of Pozzololith; in 7 sack mixes use 5 1/2 qts., etc.)

The volume of clear water shall in all cases be reduced by not less than the volume of Pozzololith added to the mix.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL



1. Kansas City Levee Elevator—Kansas City, Kansas

Horner & Wyatt, Engineers, Kansas City, Missouri

2. Anderson's Creek Dam—Du Bois, Penna. Morris Knowles, Inc., Engineers, Pittsburgh

3. Milwaukee Filtration Plant—Milwaukee J. P. Schwada, City Engineer, Milwaukee

4. Froedtert Malting Co.—Milwaukee Burrell Eng. & Contg. Co., Builders, Chicago

5. Southern Bell Telephone Co. Dial Station, Coral Gables, Florida Robert & Company, Engineers, Atlanta, Ga.

6. Allentown Reservoir—Allentown, Penna. Morris Knowles, Inc., Engineers, Pittsburgh, Penna.

7. Sewage Disposal Plant—Mansfield, Ohio George B. Sowers, Engineer, Cleveland, Ohio

"We have used Pozzolith in the concrete on several projects and find that it is possible to materially decrease the volume of water required to produce a placeable concrete."

Morris-Knowles, Inc.,
Pittsburgh, Pa.

"I have not seen a finer piece of concrete work than the contractor produced on the Mansfield Sewage Disposal Plant with Pozzolith. Not one area of honeycombed concrete showed on the surface and no excessive amount of puddling was required."

George B. Sowers,
Consulting Engineer,
Cleveland, Ohio

"On the St. Charles filtration plant job Pozzolith enabled us to make a substantial reduction in water while maintaining full strength and increasing the plasticity and workability of the mix."

Russell & Axon,
St. Louis, Mo.

"There is no question in our minds regarding our ability to produce better concrete with the same materials and less water by adding Pozzolith."

John B. Pike & Sons, Inc.,
Contractors,
Rochester, N. Y.

Independent Laboratory Tests

Ohio State University—April 20, 1936

Mix	W — C	Admixture	Slump, in.	Strength 28 days, lbs. per sq. in.
Many different mixes ranging from 1:4½ to 1:6½	Varying	None	1.16	4,870
	Varying	Pozzolith	1.75	5,804

(Tests of mixes of identical character, slump increased markedly as well as the compressive strength.)

Robert W. Hunt Co.—July 31, 1936

Mix	W — C	Admixture	Slump, in.	Strength 28 days, lbs. per sq. in.
1:1¾:2¼	6.8	3 lbs. Diat. earth	3	3029
1:2:3	6.35	Pozzolith	2¾	3334

(This test shows that with 18% more aggregate and slump approximately maintained, that the strength is increased 10% in the Pozzolith versus the richer diatomaceous earth mix.)

Donald Hunt, Ltd., Toronto—October 26, 1935

Mix	Admixture	Slump, in.	Strength, 7 days, lbs. per sq. in.	Strength, 28 days, lbs. per sq. in.
1:2:3	None	3½	2578	3371
1:2:3	Pozzolith	4¾	2852	3755
1:2:3	None	4¼		3428
1:2:3	Pozzolith	6		3835



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

INTEGRAL LIQUID COLORED HARDENER

COLORMIX



Characteristics

Colormix is *supplied in liquid form* to be added to the gauging water or directly into the mixer. Thorough dispersion is thus obtained, assuring uniformity of color and hardness.

Colormix contains Omicron (see page 3) which *reduces shrinkage* through its unique function of substantially increasing plasticity with water-cement ratio reduced up to 12½%.

Strength—Colormix increases strength from 20% to 35% over plain concrete.

Colormix *contains no calcium chloride.*

Colorwax

Colormix Floors, when cured, should be polished with Colorwax, which comes in corresponding colors.

The wax develops and preserves the full beauty, making cleaning easier and protects surface from staining.

Colors

Please refer to color chart, page 9.

Short Specification

The concrete floor finish as indicated shall be colored and hardened with (insert name of color from chart, page 9) Colormix, 1 gallon to each sack of cement, exactly in accordance with the directions of the Master Builders Company. Floors shall be cured and protected by the use of non-staining waterproof paper. When ready for use surface shall be cleaned and shall be given a finish treatment of Colorwax applied in accordance with directions of the manufacturer, The Master Builders Company.

COLORING AND HARDENING FLOORS IN PLACE

DYCROME

DYCROME provides an unusual technique for permanently coloring and hardening existing *plain* concrete floors. Finish provided is permanent because colors are etched into the surface. Colors include Flemish Oak, Weathered Bronze, Cordovan Brown, Palmetto Green, Nile Green and Jade. Hardens the surface—resists wear and dusting. Cost over period of even few years only a fraction of cost of repeated paintings which wear rapidly. Also much less costly and much more artistic than laying linoleum or installing wood or special flooring.

Specification

Existing Floors—The concrete floor finish shall be colored and hardened with the Master Builders' Dycrome in accordance with the directions of the manufacturer, The Master Builders Company.



Installing New Floors—Mortar for floors to be Dycromed shall be proportioned (mix desired), to which shall be added two pounds of hydrated lime for each bag of cement in the mix.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

HARDENING AND COLORING FLOORS BY LOW COST—DUST-COAT METHOD

COLORED METALICRON

COLORED METALICRON is a dry compound of superfine colors, Omicron and tough, wear-resisting aggregate. It produces an integrally colored wearing surface that is non-absorbent and highly wear resistant.

Colored Metalicron type of finish has been standard for over 20 years. Thousands of these floors from 5 to 20 years old are in service today. The method of installation is well known to experienced floor finishers and therefore can be specified with full confidence.

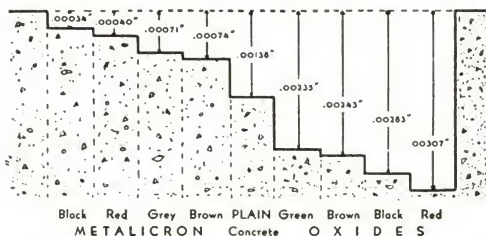
Initial cost less than that of two coats of paint—year by year cost incomparably lower.

Characteristics

1. Two or three times more wear resistant than plain cement finish.
2. Omicron ingredient protects colors from clouding and efflorescence.
3. Omicron ingredient resists attacks of alkali solutions and corrosive agents.

Strength

Abrasion tests show that Colored Metalicron floors are two to three times more wear-resistant than plain cement finish. Twenty-eight-day concrete slabs subjected to abrasion show the relative strength of—(a) plain concrete, (b) concrete colored with high grade commercial oxides, and (c) concrete colored and hardened with Colored Metalicron.



Tested and Reported by James H. Herron Company, Testing Engineers and Chemists, Cleveland, Ohio

Uses

Recommended for use either in separate top finish or where topping is omitted and base is finished off as a wearing surface ("monolithic"). For

Office Buildings Garages Service Stations
Loft Buildings Basements Salesrooms
Sidewalks

Non-Slip

A special formula of Colored Metalicron with non-slip aggregate is manufactured for use in finishing colored ramps, corridors, stairs, wet areas where slip-proof surface is desirable.



Red Metalicron Floor in service station of Gulf Refining Company, Miami. Waterproof, hardened and colorfast. Protected from stain and corrosive action of oil and grease drippings by Omicron ingredient.

COLORMIX & METALICRON COLORS

Color shades shown subject to slight variation with different brands of cement and aggregates.



Also available in Black and White.

Short Specification

The concrete floors shall be colored and hardened with Master Builders* Colored Metalicron using no less than 30 lbs. of Colored Metalicron and 22 lbs. of cement for each 100 square feet of surface, applied in accordance with the directions of The Master Builders Company.

*If non-slip feature is desired, insert words "non-slip."



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

CEMENT PAINT FOR MASONRY SURFACES

MASTERTEX

PAINTS or coatings containing oils, glues, caseins or volatiles will not adhere to wet masonry surfaces. If applied to dry walls that later become wet they saponify and come off.

Mastertex waterproof cement paint, specially designed for exterior and interior coating of concrete, brick, tile, stucco, stone and other masonry, is applied directly to the wet surface, forms a permanent bond, becomes a part of the wall. It will not blister, peel or flake and its hardness increases with age and with successive wetting. It can be washed or brushed clean repeatedly without being injured.

Not designed for use on floors or on vitrified, enameled, magnesite, gypsum, or lime surfaces.

Standard Colors: *Cream, Ivory, Green, Blue, Light Grey, French Grey, Dark Grey.*



Specification

All surfaces as indicated on plans shall be given two coats of Master Builders (insert color) Mastertex, waterproof cement coating, following the directions of the manufacturers, The Master Builders Company.

Only type of coating that adheres firmly to damp basement walls, swimming pools, garden pools, tanks, tunnels, and other masonry subject to constant moisture. Recommended for inside white on all masonry surfaces, particularly in dairies, laundries and other plants subject to steam, fumes and humidity.

COLORLESS SURFACE WATERPROOFING

MASTERSEAL . . .

MASTERSEAL waterproofs brick, tile, stucco and concrete without changing the appearance of the surface. It retards disintegration, resists the corrosive action of smoke and fumes and prevents sanding, staining and efflorescence. Two types of Masterseal are available—*All-Weather Masterseal* for use on wet or dry surfaces and Masterseal No. 1 and No. 2 for use on dry surfaces only and in temperatures above 50 degrees F.

All-Weather Masterseal may be applied to wet or dry brick surfaces in temperatures down to freezing. It speeds up completion of the job, lowers labor costs, has $2\frac{1}{2}$ times the covering capacity of conventional colorless waterproofings; designed for use on brick surfaces only. For stone, stucco, etc., use Masterseal No. 1 or 2. The latter must be applied in temperatures above 50 degrees F. No. 1 darkens light colored surfaces slightly; No. 2 wholly invisible.

Specification—Wet or Dry Walls

All brick surfaces as indicated on plans shall be treated with Master Builders All-Weather Masterseal, surface waterproofing, following the directions of the manufacturers, The Master Builders Co.

Short Specification—On Dry Surfaces Only

All surfaces of brick, tile, stucco, stone and concrete as indicated on plans shall be treated with Masters Builders (Insert Masterseal No. 1 or No. 2) colorless surface waterproofing following the directions of the manufacturers, The Master Builders Co.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

WATERPROOFING PASTE for MASS CONCRETE and MORTAR

STEAROX "30"

STEAROX "30" is a pure stearate waterproofing paste containing 30% stearic acid.

Stearox "30" has been made possible by the discovery of a new process of introducing straight concentrated stearic acid into concrete without the aid of useless adulterants.

An Authority States

"The stearate or stearic acid ingredient is the most effective constituent and the value of commercial waterproofing pastes and powders seem to depend largely upon their stearate content.

"Analyses of commercial waterproofing pastes show great variations in their stearate content. It has been the practice to add substances such as alkalies and ammonia to waterproofing pastes. *A pure stearic acid, if it can be made easily soluble in the mixing water, would be the most desirable.*"

F. O. Anderegg, Ph.D.,

Consulting Specialist on Building Materials.

Stearox "30" is *pure, unadulterated, and quickly distributed in the mix.*

Advantages

Since authorities agree that stearate content controls waterproofing value, Stearox "30"—which contains 30%—has indisputable advantages when compared with other preparations. One of the most widely used of these contains only 16% stearic acid—another only 3%.

Water absorption of concrete is reduced 60% when Stearox "30" is applied. Tests show not only the lowest total absorption but the lowest rate of absorption, which is equally important.

	1 Hr.	1 Day	Decreased absorption
Plain 1:3 mortar	.9%	1.5%	
Stearox "30" (.6 lbs. per sack cement)	.3%	.6%	60%
6 brands paste Avge. (1½ lbs. per sack cement)	.53%	.61%	59%
6 brands powder Avge. (2 lbs. per sack cement)	.7%	1.1%	26%

Economies

Only 3.6 lbs. of Stearox "30" are required to provide standard waterproofing value. This compares with 9 to 36 lbs. of other types.

Handling and transportation charges are lower, because Stearox is more compact than other waterproofing preparations.



Penik & Ford's Grain Elevator—Cedar Rapids
Stearox "30" used throughout

Protection

It is difficult to determine the relative waterproofing value of different brands because there is no convenient way of determining stearate content. (Recent analyses have shown an extreme variation of stearic acid contents and indicate that builders have received not bargains, but only what they paid for or less.)

Stearox "30" has a positive standard of value. The builder knows he is getting a preparation with 30% stearic acid—the purest, strongest and most for the money.

To insure receipt of full value, the following specification is advisable: "The waterproofing shall be free of non-stearic ingredients, and not less than .6 lbs. of 30% Stearic Acid Paste (or corresponding increased proportion of paste of lesser stearic acid content) shall be used per sack of cement."

Specification

All mass concrete shall be waterproofed integrally by the use of not less than 3.6 lbs. of Master Builders Stearox "30" waterproofing paste per cubic yard of concrete used exactly in accordance with the directions of the manufacturers, The Master Builders Co.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

THE 'DEEP-METALLED' CONCRETE FLOOR FOR HEAVY INDUSTRY --

MASTERPLATE

The MASTERPLATE floor is a dense, low-water ratio concrete finish with up to 120 lbs. of tough wear-resisting metallic aggregate per 100 sq. ft. This is 2 to 4 times more metal than it has been possible to use by the best previous methods. Masterplate is the 'Super Concrete Finish' that heavy industry has long sought.

This increased amount of metal is made possible by an exclusive new water-reducing plasticizer which makes it easy and practical to incorporate 120 lbs. of Masterplate in the surface of a 'dry mix.'

The operation is further facilitated and results made sure by Master Builders perfected mechanical technique which automatically secures the proper results; much of the costly, variable manual work is eliminated.

Where 30 to 50 pounds of regular Metallic Hardener have been the limit that could be used heretofore (attempts to use more have led to use of an excessive amount of water, which cuts strength and density), you can now have 80, 100 or 120 lbs. of Masterplate—many times more wearing service!

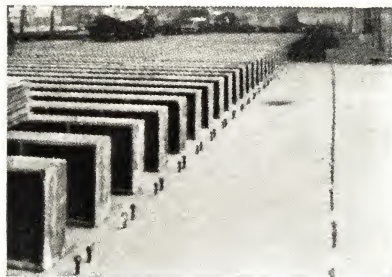
Masterplate is a combination of Master Builders pure water absorbent, carefully graded Metallic Hardener with *Omicron* to give resistance to corrosive agents, and with the new patented water-reducing agent which make practical and easy the use of 120 lbs. of metal per 100 sq. ft.



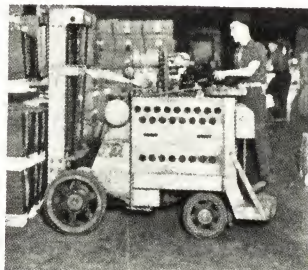
Specification

The concrete floor finish shall be hardened with Master Builders Masterplate using not less than (here insert 80 lbs. to 120 lbs. for heavy duty floors) of Masterplate to each 100 square feet of surface. The Masterplate shall be applied and the floor finished and protected in accordance with directions of THE MASTER BUILDERS CO.

As always, Master Builders service is available to help builders get exactly the kind of floor today's heavy industries require. Steel mills, paper mills, factories and industries of all descriptions are now installing this long-lived low-maintenance floor that will outwear any concrete floor you have ever seen. Further information on request.



Masterplate floor in service at the Wheeling Steel Co. plant, Steubenville, Ohio



Masterplate floor in service at Follansbee Bros. Steel Mill, Follansbee, W. Va.



Masterplate floor on the shipping platform of the Welch Grape Juice Company, Westfield, N. Y.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

FOR AVERAGE INDUSTRIAL TRAFFIC . . . IT'S METALICRON

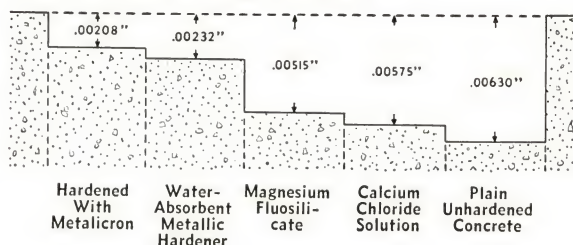
Wear resistance "teams up" with corrosion resistance in Metalicron hardened concrete floors to create long-lived, economical concrete floors for average industrial use. More than twenty-five years of experience have established the superiority of Metalicron floors, for not only does Metalicron provide a hard, long-wearing "iron" surface but it also provides through its Omicron ingredient a surface impervious to the destructive action of cutting oils and alkalis common in practically every industry. Metalicron is easy to apply, easy to finish and free from dusting and crazing. The list of Metalicron users reads like a "Who's Who" of American industry. Sent on request.

Non-Slip Metalicron

The standard formula is changed to include non-slip aggregate. Specify "Non-Slip Metalicron" for use on ramps, stairs and other areas where non-slip finish is desired.

ABRASION CHECKED

Concrete specimens subjected to abrasion tests show following relative wear resistance:



Specification

The concrete floor finish shall be hardened with Master Builders Metalicron, using not less than [here specify 30, 40, 50 or 60 (maximum) lbs. per 100 sq. ft. according to weight of traffic to be carried] of Metalicron to each 100 square feet of surface. The Metalicron shall be applied and the floor finished and protected in accordance with directions of the Master Builders Co. (If the non-slip finish is desired, insert the words "Non-Slip" before the word "Metalicron".)

COMMERCIAL and LIGHT DUTY INDUSTRIAL FLOORS MASTER MIX

MASTER MIX has been the standard integral liquid floor hardener and water-proofer for commercial and light industrial concrete floor finish since 1915.

Ideal for office building, laundries, auditoriums, lofts, schools, garages, and similar areas subject to heavy foot traffic or light trucking.

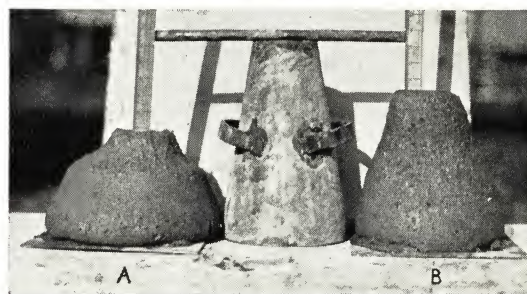
Important Characteristics

1. By virtue of its Omicron content, it *reduces* shrinkage while *increasing* plasticity with *reduced* water-cement ratio. The proven result is a dense hard and non-dusting floor.
2. Master Mix Floors not affected by mild corrosives because Omicron combines with a substantial portion of free lime throughout topping.

Colored Master Mix

Identical in all respects to Master Mix—plus colors. It colors and hardens entire thickness of topping and is ideal for low cost color treatment of large areas. Colored Master Mix floors receive a supplementary treatment of Glazecoat, which imparts a permanent finish. For large areas the results produced by the Colored Master Mix-Glazecoat method cannot be duplicated by any other means for less than several times its small cost. Red—Brown—Tan—Gray—Black.

HOW MASTER MIX IMPROVES WORKABILITY



"A" with MASTER MIX—"B" without MASTER MIX
1 part cement to 2 parts sand. 1 part cement to 2 parts sand.
4 1/4 gal. water plus 1 quart of Master Mix. SLUMP, 6 1/2". 4 1/2 gal. of water. SLUMP, 3".

Specification

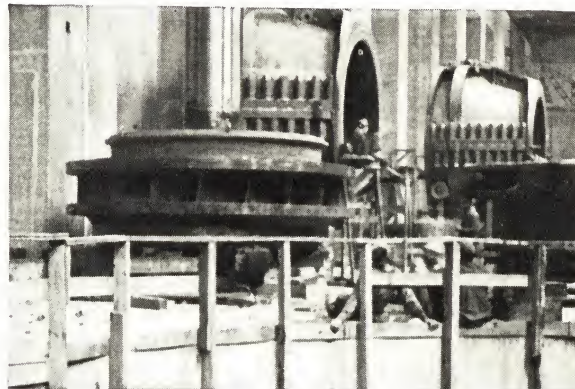
All concrete floor finish as designated shall consist of one part standard Portland cement and two parts clean sharp sand and shall be hardened with Master Builders Master Mix used in the proportion of one quart of Master Mix to every bag of cement mixed. Colored Master Mix, use one gallon per bag of cement. For industrial light duty areas the concrete floor finish shall consist of one part Portland cement and 1 1/2 parts clean, sharp sand and 1 1/2 parts hard pea gravel or crushed stone graded up to 3/8 inch. For floors subject to corrosive agents use two quarts of Master Mix to every bag of cement mix. Not over 5 gallons of liquid, including Master Mix, shall be used per sack of cement. Place, finish and protect in accordance with directions of the Master Builders Co.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

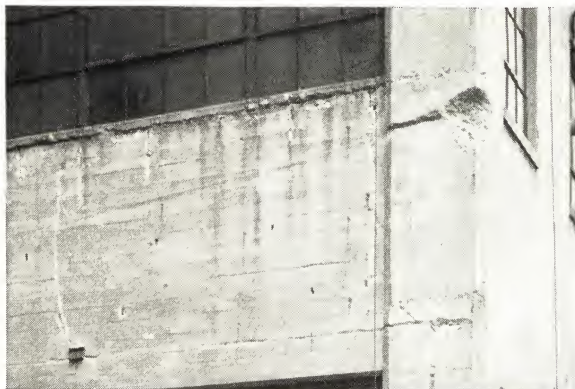
REINTEGRATION — GROUTING — REPAIR BY THE NON-SHRINK E M B E C O METHOD

EMBECO is a metallic aggregate which wholly eliminates shrinkage in concrete. Since its development fifteen years ago, Embeco has become the standard specification for grouting, repairing and reintegration in the nation's major industries. An increase of 50% in strength results from the use of Embeco and shrinkage cracks do not appear in mortars whether placed by hand or pressure gun equipment. To the architect or engineer faced with the problem of restoring concrete structures, Embeco offers a safe, simple method of obtaining excellent results.



Massive generating equipment being placed before grouting with non-shrink Embeco . . . at Boulder Dam.

CONCRETE BUILDING RESTORATION



Preparatory work completed, ready for restoration with non-shrink Embeco, Continental Can Company plant, Baltimore, Md.

The non-shrink Embeco method of concrete building restoration has proved successful in many cases where other products and methods have failed. So completely does Embeco eliminate shrinkage that patches and repairs made with it create a perfect bond and a completely sealed base for finishing mortars. Among the hundreds of jobs on which Embeco was used are found the names of many of the nation's leading industries. Time tried, proven, it has steadily grown in favor and acceptance among architects and engineers until today it enjoys leadership in its field.

Elimination of Shrinkage Means Perfect Bonding, Perfect Repairs

The unique ability of non-shrink Embeco to completely eliminate shrinkage in concrete has enabled maintenance engineers in the nation's major industries to create really permanent restoration of concrete walls, floors, buildings, grouts, etc. Because non-shrink Embeco does eliminate shrinkage, it forms a perfect bond with the old concrete to which it is applied, building tremendous strength and durability into the original structure. Easy, economical to use, non-shrink Embeco has become a standard specification in the repair and maintenance work of many great industries, railroads and public utilities.

Complete Pictorial Specifications for All Types of Work

To simplify the task of the maintenance crew, Master Builders have produced a book of pictorial specifications, showing the step-by-step procedure in the correct use of non-shrink Embeco. So complete and effectively illustrated is this book that we have been forced to re-issue it a number of times to meet the demand of those who wish to know more about this exceptional product. A copy is yours for the asking.

GROUTING — Machinery, columns, floor grids, etc.

REPAIRS — Heavy duty floors, ramps, platforms.

REINTEGRATION — Buildings, bridges, dams, etc., by hand-placed or gunned methods.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

OTHER MASTER BUILDERS PRODUCTS

Detailed descriptions, technical data and specifications on any of these products sent upon request

METALLIC WATERPROOFING

Master Builders Metallic Waterproofing is applied to either inside or outside wall surfaces, usually the inside surface. It permanently seals all pores and cracks, and provides a water-tight metal-cement sheath that defies time and elements. Applied as successive brush coats or as a plaster coat, or both, as conditions require.

Metallic Waterproofing is used widely instead of the more expensive and difficult membrane method. One great advantage is the ease with which structural cracks or leaks are located and cheaply repaired. Metallic Waterproofing is a permanent seal for repairing and reintegrating masonry and concrete structures.

BONDING IRON

For Bonding Separate Top Finish to Hardened Concrete Slab

Bonding to a set slab is largely a matter of workmanship, but results are surer when Master Builders Bonding Iron, specially designed for this purpose, is used. Bonding Iron is applied in a one-coat treatment to the base slab after the surface has been roughened and thoroughly cleaned and saturated with water. The coat oxidizes, providing a waterproof sheath that prevents the dry base from drawing moisture from the topping and provides an additional mechanical key. Approximately 15 pounds per 100 square feet required.

Specification

Where a cement finish is to be applied to a set slab, the slab shall be thoroughly roughened with picks and broom cleaned; slab shall then be saturated with water, and a grout of Master Builders Bonding Iron shall be applied exactly in accordance with directions of the manufacturers, The Master Builders Co.

CAULKING COMPOUND

In nine colors and natural. Applied by knife or gun.

SANISEAL

For Floors Already Installed

Master Builders Saniseal is a powerful chemical hardener, which when mixed with water and brushed into the floor surface, deposits in the pores a hard, wear-resisting crystal. This arrests dusting and hardens the surface.

Saniseal is designed as a maintenance or corrective treatment for floors already installed. Not less than 2 lbs. of Saniseal should be used per 100 sq. ft.

CONCRETE PRESERVATIVE

Protects concrete from the attack of reagents which ordinarily cause rapid deterioration, such as solutions of alkalies, acids and salts. It is a moderately viscous amber liquid of a non-volatile synthetic base, which, when applied on any dry concrete surface, penetrates and fills the pores with a waterproof corrosion resistant. An excellent alkali-resisting priming coat for oil paints to be used on concrete or masonry, as it waterproofs, forming a strong bond between paint and concrete, preventing blistering and peeling. Concrete Preservative is recommended for application to all concrete exposed to severe corrosive conditions, such as floors in food manufacturing plants, bakeries, laundries, concrete tanks and vats, sewers, silos, bottling plants.

PLASTER BOND

A black bituminous-base adhesive paint for excluding dampness from the inside of exterior walls that are to receive a plaster finish.

FOUNDATION COATING

A black elastic hydrocarbon waterproofing applied cold to exterior surface of masonry below grade.

REPRESENTATIVES

(For Street Address and Phone Number, Consult Directory)

(Continued from Page 2)

MONTGOMERY, ALA.
T. M. Gorrie
MONTREAL, QUE.
Webster & Sons, Ltd.
NEW ORLEANS, LA.
Clifford A. King, Jr.
NIAGARA FALLS, N. Y.
Empire Bldrs. Sup. Co.
OKLAHOMA CITY, OKLA.
Bissell Bldrs. Sup. Co.
OMAHA, NEB.
Earl S. Lewis & Co.
OTTAWA, ONT.
Webster & Sons, Ltd.
PEORIA, ILL.
Peoria Fuel Co.
PHOENIX, ARIZ.
Walter Dubree
PITTSBURGH, PA.
McCready-Rodgers Co.
PLATTSBURG, N. Y.
Dock & Coal Co., Inc.
PORT ARTHUR, ONT.
Ernest A. Cuff
PORTLAND, ORE.
McCracken-Ripley Co.
PROVIDENCE, R. I.
H. R. Horton & Co.
QUEBEC CITY, QUE.
Webster & Sons, Ltd.
ROCHESTER, N. Y.
Geo. A. McNeerney
ST. LOUIS, MO.
Heinecke Coal & Mat'l's Co.
SALT LAKE CITY, UTAH
Williams & Richardson
SAN ANTONIO, TEX.
Rufus A. Walker
SEATTLE, WASH.
Tourtellotte-Bradley Co., Inc.
SHREVEPORT, LA.
Builders Supply Co.
SYRACUSE, N. Y.
F. J. Ludwick
TAMPA, FLA.
J. E. Wood
TOLEDO, OHIO
Kuhlman Builders Supply Co.
TRENTON, N. J.
Tattersall Company
UTICA, N. Y.
American Hardwall Plaster
VANCOUVER, B. C.
The O'Neil Co., Ltd.
WALKERVILLE, ONT.
Kenneth E. Shaw
WASHINGTON, D. C.
A. P. Woodson Co.
WICHITA, KAN.
Spencer Allen Fuel Co.
WILSON, N. C.
J. L. Lawshe
WINNIPEG, MAN.
Walker's Limited
YOUNGSTOWN, OHIO
Youngstown Ice Co.



IN CANADA
THE
MASTER
BUILDERS
CO., LTD.
TORONTO
MONTREAL

Omicron



Digitized by ASSOCIATION FOR PRESERVATION TECHNOLOGY, www.apti.org for the
BUILDING TECHNOLOGY HERITAGE LIBRARY
<https://archive.org/details/buildingtechnologyheritagelibrary>

The Master Builders Co
cleveland ohio